Impact of New Media Technologies on News Gathering and Dissemination

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Abstract

This study seeks to identify the effectiveness of the new media technology with respect to how they assist in the process of news gathering and dissemination. The impact of new media technology is enormous as it includes interconnectivity. However, there are lapses in infrastructure, power supply, telecommunication, also there is low level of computer literacy among media practitioners, lack of equipment, limited qualified personnel, technical and financial problems. The use of facilities in Nigerian mass media is still in its infancy, but its impact on journalism is already phenomenal. It is necessary for journalists to assist Schools of Journalism in training others to be literate in the use of new media technology. There is need for technical training in maintaining these facilities. This research was conducted in Makurdi Benue State. The population of this study is 149 consisting reporters, news editors, studio managers, producers, technical crew from Nigeria Television Authority (NTA), Radio Benue, The Voice Newspaper. and The Pavilion Newspaper. This is because they are essentially the ones that carry out the task of news gathering and dissemination. One hundred and forty-nine (149) questionnaires were sent out but only one hundred and twenty-nine (129) were returned and found to be useable. Findings show that the Internet, email, mobile phone, digital camera, computer, and tape recorders are mostly used in these media outfits for news gathering.

Key words: Computer, Internet, Digital Camera, New media technology, Satellite.

Introduction

In recent times, the mode of gathering, processing, and dissemination of news witnessed a drastic change, which occurred as a result of the advent of the new media. New media are forms of media that are computational and rely on computers and the Internet for redistribution. The new media according to kunezik (1998:62) are all means of telecommunication which enable communication content to be gathered, worked on, relayed, retrieved and stored in new ways. New media technologies are changing journalism practice. Corroborating this, Samaila and Njoku (2005:8) "suffice those new media technologies are changing journalism as we know is in profound ways. They are changing how news is gathered, and disseminated including the audience in the story telling process. Advancements in digital technologies have dramatically

altered the practice of journalism and allowed instantaneous communication in the world".

Journalism is undergoing a fundamental transformation and one of the key reasons cited for this transformation is the changing nature of technology, which impacts directly on the practice of journalism (Fenton 2010, Audu, Adyeye, Onoja and Ogwo 2012). According to Haggat (1999:30), new media technologies are revolutionary because it is a single technology that can handle behind the scene work and frequently it is the finished product. Akpan (2004:70) notes that technology is not a medium but a social force bringing changes to the media world. The technologies of media are of two, the new media technologies such as the modern computer, while the old media technologies are other forms of technologies used before the advent of computers in communication system, like telephone, photography, etc.

Okunna (2004:20) observes that the new media technologies are variously called New Communication Technologies (NCTs). New Information Technologies (NITs) or Computer Mediated Communication (CMC) and have given rise to the information Highway. Tapsall (200:14) affirms that advancements in digital technologies have dramatically altered the practice of journalism and allow instantaneous communication between most destinations in the world. Maida (1996:133) says electromagnetic and the new dimension to it is the emergence of the interface between the computer and telecommunication

On the synergistic relationship between computer, newsgathering and dissemination, Okunna (2004:23) says that computer has remained the highest electronic communication tool for journalism related professions. Electronic spreadsheet, computer-aided deigns, personal and group calendars and even phone books are other ways of facilitating news reportage by computers. Though, it is an established fact the new media has influenced the practice of journalism, yet, there is need for providing empirical data on the extent of its influence on the practice of journalism in Benue State, hence this study.

Statement of Problem

There has been a drastic change from the way journalist used to gather, process and disseminate news and this change came as a result of technological innovation. The advent and use of computers in gathering, processing and dissemination of news has created a super- highway for information

dissemination. However, there are no empirical data to prove this among professionals and practitioners in Benue State, hence, this study is to provide reliable empirical record on the extent of the influence of the new media on the gathering, processing and dissemination of news in Benue State.

Objectives of Study

(i) To examine new media technologies' influence on the operations of the media in news gathering.
(ii) To evaluate the effectiveness of the new media technologies in the process of information flow for development.

Research Questions

(i) To what extent have new media technologies influenced the operation of the media practitioners in the process of news gathering?
(ii) What are the problems of new media technologies in news gathering and processing?

Review of Related Literature

Conceptual clarification:

New media

Integrating new media technologies into newsgathering is the process of blending together of advanced technologies, services and products to all forms of human communication in an electronic-based computer-driven system. Ober (1998:76) states that "on the Internet, you can send and receive e-mail, transfer files between computers, search for information and participate in groups' discussion". Another important aspect where computers are integrated in news gathering is what Defleur and Dennis (1998:84) have called computer-Assisted Reporting (CAR) analysis. This is essentially the use of computer based statistical analysis of the electronic records of government or other agencies to develop news stories on their activities.

Juuko (2004:10) says that "the camera cell phone is here to change newsgathering process. Journalist will be able to take pictures whether videos or not wherever and distribute them in real time through concept like mob logging. New media technologies, according to Young (1992:45), have ultimately made news gathering techniques to be drastically enhanced by the introduction of portable

satellite equipment, mobile broadcasting stations and video phones. These technologies have become easily accessible to news networks and have formed the basis of modern wartime journalism- ensuring that live coverage of international conflicts is now the common standard of wartime reporting.

Computer Technology

Computer is a device that accepts, processes and stores data. It is the nucleus of the modern communication technology. Agba (2001:48) posits that the ability of the computer to process, transmit, store and execute programmes makes it versatile. It speeds up problem solving and increases productivity. Hornby (2007:298) shares a similar view by writing that "computer is an electronic machine that can store, organize and find information, do calculations and control other machines. Ochai (2007:22) opines that the computer can be used to manipulate data according to a list of instructions. The ability of the computer to keep signals in its memory and provide visual and even radio interpretations to such signals makes it an invaluable hardware for information dissemination in broadcast industry.

Empirical Study

Ikpe and Olise (2010) conducted a research on the era of new media technologies and the challenges of media relations practice in Nigeria. They found out that new media technologies like the Internet, mobile phones, videoconferencing among others, which now overlap with the different media of communication due to technological innovations and convergence, have transformed media relations practice. Although, certain factors such slow technological penetration, poor funding, among others, pose as challenges to effective media relations practice in Nigeria. The study supports the theoretical perspective of technological determinism theory. They suggested that those directly or indirectly involved in the practice of media relations in Nigeria should merge resources together or separately and be actively involved in ensuring that the transformations brought about by new media technologies in media relations are explored.

Similarly, John (1997) carried out a study on computer studies in Ekiti State and discovered in his findings that major radio and television stations like NTA, and the State radio station were acquiring training on the use of application of ICT in filing their news report using their computers and phones. The study used survey method to generate data using questionnaire. It was discovered that journalist could adapt to the changing trend to carry out their assignments.

Audu, Adeyeye, Onoja and Ogwo (2012) conducted a research on the topic "social media use in news gathering and dissemination among journalist in Benue state. The study was focused on finding out whether journalists in Benue State use social media in news gathering and dissemination, ascertain how they use the social media and to evaluate the extent of influence of the social media on journalism practice. It was discovered that journalists in Benue State use one form of social media or the other and that Facebook was the most popular and widely used network. It was also discovered that the social media have positively influenced journalism practice in Benue State and it was suggested, among other things, that media houses should provide journalist with computers and social media should be incorporated into the mainstream journalism. The present study is different from this in that it seeks to investigate the extent of adoption and the extent of influence. The present study also focuses on the new media generally not just the social media.

Theoritical Framework

Technological Determinism Theory

The technological determinism of Marshall Mcluhan (1975) was earlier known as sense-extension theory. The basic premise of the theory is based on what might be called the psychoanalysis of the mass media. This means that the media are extensions of the human body; and that the media alter not only their environment but also the message they convey; they bring new perceptual habits while their technologies create new human environments (Folarin, 1998:116). Griffin (1994:332) says that in each case the world was wrenched from one era into the next because of new developments in communication changes the way we perceive the world.

Griffin (1994:338) says that "the day of the individualist, of privacy, of fragmented or applied knowledge of point or view and specialist goals is being replaced by the overall awareness of a music world in which space and time are overcome by television jest and computers a simultaneous "all at-once, world in which everything resonates with everything else as in a total electrical field. The electronic media have made instant, worldwide communication possible, thus, turning the world into a global village. Ward (2002:20) says, more and more people access information from various channels from home or work. It is becoming a widely available of access to information any time at the convenience of the user.

Akpan (2004:73) also submits that digital technology, especially the television, will enable a broadcast station to transmit more channels at any given spectrum width. This means that up to five quality channels. Efuophu-Biri (2005:11) has it that a direct broadcast satellite can send signals directly to consumers instead of going through such intermediate delivers as station or cable systems. Gralla (1999:19) holds it that broadcast is done through the Internet, radio and streaming video. This means that there are two main types of radio stations that broadcast over the Internet traditional radio stations also broadcast over the airwaves and Internet only broadcasts. In both instances, the station plays music or news or offers other kinds of broadcast in much the same way as normal radio station does.

Diffusion of Innovation Theory

The original diffusion research was done as early as 1903 by the French sociologist, Gabriel Tarde, who plotted the original S-shaped diffusion curve. An innovation is an idea, practice, or object perceived as new by an individual or other unit of adoption. The diffusion process typically involves both mass media and interpersonal instrumental action that reduces the uncertainty in the cause-effect relationships involved in achieving a desired outcome. He made it clear that a technology is information, not just equipment. Most technologies have hardware and software components. News agencies have dramatically changed over the last few years with the casting and advent of the Internet and online news on social media. In Nigeria, African independence Television (AIT) recently uploaded the television news for completion of Abuja-Lokoja highway by (FG) Federal Government. News agencies in Nigeria have realized that fact that consumers are on the new media and it is paramount to catch them there, thus, the need to adopt new media technologies in newsgathering business.

Research Methodology

This research employed survey method to carry out the study. The population for this study is 149 from four media organizations. The choice of Taro Yamene's formula was informed by virtue of its suitability in the determination of samples from a heterogeneous population. The research instrument used was questionnaire. The questionnaire method was chosen because it is probably the best scientific approach of studying a large population. The reliability of instrument in this work will be done through the use of test and retest technique to determine if similar studies had been done with questionnaire as instrument for

data collection. The data collected from the questionnaire used in this research work was analyzed using simple percentages and was presented with the aid of tables and simple percentages.

Data Presentation and Analysis

Table 1: Demographic Data

Characteristics Respondent		Frequency	Percentage (%)
1	**Gender**		
	Male	89	69
	Female	40	31
	Total	**129**	**100**
2	**Age**		
	18-24	45	35
	26-35	36	28
	36-45	29	22
	46 and above	19	15
	Total	**129**	**100**
3	**Educational Qualification**		
	GCE/WAEC	19	14.8
	NCE/DIPLOMA	44	34.1
	HND/DEGREE	15	11.6
	B.A/B.Sc.	27	20.9
	M.Sc.	11	8.5
	NO response	13	10.1
	Total	**129**	**100**

Source: Field Survey, 2021

Table 1 shows the general demographic characteristics of the respondents. The raw data in Table 1 revealed that, out of the 126 respondents who returned their copies of questionnaire, 90 (59%) slight majority were males, while 59 (41%) others females. It is clearly shown on Table 1 that, although the researcher ensured distribution of questionnaire to both sexes of respondents on equal basis, those who failed to return the questionnaire had more female respondents and, hence, the slight majority of the males over the females.

Also, out of 129 respondents, 45 (35%) respondents were of the age bracket of 18-24, while 36 (28%) other respondents were between the age of bracket of 26-

35. Again, 29 (22%) meager respondents were also between the ages of 36- 45, while 46 and above were 19 (15%) respondents within the age bracket. The result in the table shows clearly that the majority respondents of 35% fall within the age bracket of 18- 24 and followed by those within 21- 35. Majority of respondents here were within middle and youthful ages that are up-coming and can respond to the questionnaire based on their personal experiences as it relates to their desired experiences and actions.

The same table represents the educational qualification of respondents 19 respondents representing (14.8%) of the total population have GCE/WAEC certificate, 44 respondents representing (34.1%) of the total population have A level certificate of certificate, NCE or Diploma certificates, 15 respondents representing (11.6%) of the total population have HND/ DEGREE certificates, 27 respondents representing (20.9%) of the total population have Bachelor of Arts (B.A) or science (B.Sc), 11 respondents representing (8.5%) the total population are holders of master's degree (M.Sc). while 13 respondents representing (10.1%) of the total population did not respond to this question. The analysis shows that those involved in news gathering and dissemination have advanced level certificates, NCE or Diploma. This is because cert/NCE/Diploma has the highest frequency of 44 (34.1%) respondents of the total population.

Table 2: Respondents who represents job specification

Job	Frequency	Percentage (%)
Reporters	48	37.3
Producers	31	24.0
News editors	15	11.6
Technicians	31	24.0
Studio managers	4	3.0
Total	**129**	**100**

Source: Field Survey, 2021

Table 2 represents job specification of respondents. 48 respondents representing (3.7%) of the total population are reporters 31 respondents representing (24.0%) of total population are producers, 15 respondents representing (11.6%) the total population are news editors, 31 respondents representing (24.0%) of the total population are technicians while 4 respondents representing (3.1%) the total population are studio managers.

Table 3: Distribution of respondents of News Source in media organizations

Dominant source	Frequency	Percentage (%)
Internet	14	7.2
Reporters/freelance	44	32.3
Radio/Television	20	12.8
Press release	25	19.5
Other media organizations	8	12.3
All of the above	18	15.9
Total	**129**	**100**

Source: Field Survey, 2021

Table 3 represents the dominant sources of news. 14 respondents representing (7.2%) of the total population said the Internet; 44 respondents representing (32.3%) of the total population said reporters/freelancers; 20 respondents representing (12.8%) of the total population said other radio and television station; 25 respondents representing (19.5%) of the total population said press release, 8 respondents representing (12.3%) of the total population said other media organization, while 18 respondents representing (15.9%) of the total population said it is all of the above mentioned. This table shows that reporters/freelancers are the dominant sources of news, because reporters/freelancers have the highest frequency.

Table 4: Responses showing the instrument of news gathering

Instrument	Frequency	Percentage (%)
Pen and paper	30	26.1
Tape recorder	52	39.4
Photographic camera	10	11.1
Video phone	9	3.9
GSM handset/telephone	21	16.3
Computer notebook (Laptop)	1	0.5
Digital camera	6	2.7
Total	**129**	**100**

Source: Field Survey, 2021

Table 4 represents the instruments used in news gathering; 30 respondents representing (26.1%) of the total population use pen and paper; 52 respondents representing (39.4%) of the total population use Tape recorder; 10 respondents representing (11.1%) of the total population use photographic camera, 9

respondents representing (3.9%) of the total population use video phone, 21 respondents representing (16.3%) of the total population use GSM handset/telephone, 1 respondents representing (0.5%) of the total population use computer notebook, 6 respondents representing (2.7%) of the total population use digital camera. This table shows that the instruments used in news gathering is tape recorders, because 52 respondents representing (39.4%), has the highest frequency.

Table 5: Distribution of respondents on media used

Media	Frequency	Percentage (%)
Mobile phone	56	42.1
E-mail	23	19.7
Web cam/chat	3	1.9
Teleconferencing	4	7.9
All of the above	10	25.7
No response	33	25.7
Total	**129**	**100**

Source: Field Survey, 2020

Table 5 represents the media through which interviews are conducted. 56 respondents representing (42.1%) of the total population use mobile phone; 23 respondents representing (19.7%) of the total population use E-mail; 3 respondents representing (1.9%) of the total population use web cam/chat, 4 respondents representing (7.9%) of the total population use teleconferencing; 10 respondents representing (25.7%) of the total population is all of the above, while 33 respondents representing (25.7%) of the total population did not responds to this question. The Table shows that mobile phones are used for conducting interviews because 64 respondents representing (42.1%), which has the highest frequency use mobile phones.

Discussion

Responses from the respondents in question table 4 indicated that the use of the new media technologies have influenced the operations of the broadcast media by saving time, making delivery easy, increasing efficiency, reducing error in script and cutting the barriers of distance. It has also influenced the general output of the broadcast media by the increase in the number of quality programmes as a result of the speed at which these machines work. It has also helped in the clarity of pictures as a result of digital editing and sound effects, and it also helps in

analyzing and realizing different results from dominant source of news in different media organization.

The responses from the respondents show that new media technologies have been effective and exclusive based on all of the above. 40 of respondents representing (35.1%) of the total respondents said they have access to these new media technologies in their stations, which means that they work with them in their various stations. To authenticate this further, 27 respondents, representing (17.8%) of the total respondents, said that the tools are efficient in their studio. More so, some new media equipment such as the computer, digital recorder and the Internet satellite technology was identified by the respondents as some of the new media technologies they make use of in their stations because it is flexibility, interactivity and the way it saves cost. Therefore, we can say that they have incorporated the new media technologies in their operations although at a low pace.

The challenges posed by new media technologies to broadcasting in Nigeria are enormous and cannot be over emphasized. This, findings from the analysis of the result in question seven indicates that the extent or level of respondents with the revealed on the advantage in newsgathering and dissemination in Nigerian broadcasting sector understand the new media technologies as an indispensable tool meant for their effective operations, Tables 3, 4 & 5 answer the research question. The findings shows the majority of the respondents indicating that the Internet, e-mail, mobile phones, digital cameras, computer notebooks, Tape recorders, etc., are most used in their stations. This is represented by the responses of 52 respondents, representing 39.4% of the total sampled respondents, as shown in Table 5.

Conclusions and Recommendations

The basis of new media technology is electromagnetic and the new dimension to it is the merging of the interface between the computer and telecommunications. Electromagnetic technology is a bewildering array of interconnected forms. This includes any communication device encompassing computers, the Internet, mobile phone, video phone, facsimile, digital camera, digital interactive televisions, satellite, video text, the notebook, telex, multiplexing and other information gathering and dissemination facilities. The Internet helps journalist to enter the World Wide Web to gather information about people, place and things that could provide background information that can be helpful in developing

stories. This study concludes that reporters are the most staff that gather news for their various organizations. The new media technologies are efficient in saving cost of information gathering, which, in return, increases access to information. The study recommended that:

Nigerian broadcasters should fully embrace and adapt to the use of new media technologies in other to fully remain relevant in the industry. Practitioners should be trained in the use of new media equipment.

The government should encourage by subsidizing the process of new media technologies so that media houses can import the new media technologies. Government should provide some facilities, make electricity work and provide quality equipment.

The mass media organizations should also make efforts to invest in the new media technology development and acquisition. If they acquire the latest and best equipment, this will ensure effective performance and enhanced patronage.

Reference

Akpan, C. S. (2004). *The Impact of New Communication Technologies on the Broadcast Industry* in International Journal of Communication: Enugu: Ebenezer productions Nig. Ltd.

Baran, S. J. and Davis, D. K. (1992). Mass *Communication Theory: Foundations, Ferment and Future.* California: Wardsword Publishing Compan.

Hornnby, R. (2007). *Introduction to Online Journalism: Publishing news and Information. New York:* Allyn and Bacon.

DeFleur, M. and Dennis, E. (1998). *Understanding Mass Communication: A Liberal Arts Perspertive (6th ed).* Boston: Hongbton Mifflin Company.

Egule, J. and Okobia, D. (1998). *Research Method in Education for Colleges And Universities.* Onitsha: Kmensuo Educational Publishers.

Ezejulue, A and Ogwo, O. (1990). *Basic Principles in Managing Research Project* Onitsha: African- Feb. Publishers Limited.

Graffin (1994) *Reporting for the Media*. New York. Harcourt Brace and Company.

Folarin, B.(1998) *Theories of Mass Communication: An Introductory Text.* Ibadan: Stirling- Horden Publishers.

Frey, E. R BC. H. Friedman, P. G. Kreps. G. L. (1991) *Investigating Communication: An Introduction to Research Methods*. London: Prentice-Hall International Limited.

Young, B (1992) *Computer Assisted Reporting (2ed).* New Jersey: Lawrence Erlbaum Associated, Publishers.

Gralla, P (1999) *How the Internet Works.* Indianapolis: Macmillan Computer Publishing.

Ochai (2007) *The New World Information Economy and National Development in the High – Tech Age* in Uwakwe (ed) *Media Technology: Issues and Trends***.** Enugu: Afrika-Links Books.

John, V (1997) *The Media of Mass Communcation*. Boston: Allyn and Bacon Company.

Junko, K (2004) *Digital Journalism: Emerging Media and the Changing Horizons of Journalism.* Oxford: Rowman and Littlefield Publishers Inc.

Knott, G, Waltes, N, Cattaghan, P and Ellison. J (1990) *Computer Studies for BTFC (2nd ed).* London Business Publishers.

Kunezik, M (1998) *Concepts of Journalism:* Bonn: Friedrich Ebert Stiffing Publishers.

Maida, W. (1996) New *Technology and the Transformation of the Communication Process:* Challenges for the Nigerian Media in the 21st century. Abuja: NUJ Abuja Council.

Mande, S and Njoku, I (2005**)** *Information and Communication Technology, Globalization and Broadcasting: A Symbiotic Relationship* in National Conference of African Council for Communication Education (ACCE) held at Benue State University, Makurdi on 20th – 22nd July

Ober, S. (1998) Contemporary Business Communication. Boston: Houghton Miffin Company.

Okunna, C (2004) *The Role of Information and Communication Technology in Reporting Rural Issues in Media Technology: Issues and Trends***.** Enugu: Afrika-Links Books

Tapsall, S (2001) Journalism: *Theory in practice*. Melbourme: Oxford University Press.

Ufuohpu-Biri (2005) *Influence of Globalization and Modern Communications Technologies on the Nigerian Media* in National Conference of African Council for Communication Education (ACCE) held at Benue State University, Makurdi on 20th – 22nd July.

Ward, M (2002) *Journalism Online.* Oxford: Focal Press

Woherem, E (2000) *Information Technology in the Banking Industry*. Ibadan: Spectrum Books Limited.